Designing Craters: Creating a Deep Impact

Exploring Cratering

STUDENT ACTIVITY

BACKGROUND INFORMATION

In this activity, you will be exploring how the factors your class brainstormed and listed influence crater size.

Possible things to try:
- Drop objects from different heights
- Drop objects of different weights
- Drop objects of different sizes
- Drop objects of different shapes
- Compact the surface material (pack down the flour or sand)

1. Collect the materials that you need:
   - Pan of surface material
   - Collection of different objects to act as impactors
   - Ruler & string to help you make measurements

2. Come up with your own ways to test the different factors listed by the class as possible influences on crater size. Experiment as much as you like.

Things to measure and notice:
- Crater depth
- Crater diameter
- Shape of the crater

Use the table below (or create your own) to record your findings, observations, and crater measurements. List the objects or impactors you are testing in the top row, and your procedures and variables (weight, size, shape, etc., of your objects) in the left-hand column. In the right column, jot down observation notes and include the resulting crater measurements.

Impactor Used:	
Procedure	**Observations**

Crater Depth	
Crater Diameter	
Crater Shape	

Impactor Used:

Procedure	Observations

Crater Depth	
Crater Diameter	
Crater Shape	

Impactor Used:

Procedure	Observations

Crater Depth	
Crater Diameter	
Crater Shape	